

AMENDMENTS TO THE CLAIMS**WHAT IS CLAIMED IS:**

1. (Withdrawn) A sequential lateral solidification apparatus, comprising:
a laser generator generating and emitting a laser beam;
an X-Y stage movable in two orthogonal axial directions;
a mask arranged between the laser generator and the X-Y stage, the mask having a plurality of slits through which the laser beam passes;
an objective lens arranged between the mask and the X-Y stage, the objective lens for scaling down the laser beam; and
a mask stage connected to the mask, the mask stage controlling minute movement of the mask.
2. (Withdrawn) The apparatus according to claim 1, further comprising a condenser lens between the mask and the laser generator.
3. (Withdrawn) The apparatus according to claim 2, wherein the condenser lens condenses the laser beam.
4. (Withdrawn) The apparatus according to claim 1, wherein a distance over which the X-Y stage is movable is greater than a distance over which the mask controlled by the mask stage is movable.
5. (Currently Amended) A method of crystallizing an amorphous silicon film using a sequential lateral solidification apparatus, which includes a laser generator generating and emitting a laser beam, an X-Y stage movable in two orthogonal axial directions, a mask arranged between the laser generator and the X-Y stage, the mask having a plurality of slits through which the laser beam passes, an objective lens arranged between the mask and the X-Y stage and the objective lens scaling down the laser beam, and a mask stage connected to the mask, the mask stage controlling fine movement of the mask, the method comprising:
setting a substrate having an amorphous silicon film thereon upon the X-Y stage;

~~[[applying]] irradiating~~ the laser beam to the amorphous silicon film ~~after the laser beam passes through the plurality of slits of the mask, thereby melting and crystallizing first portions of a block,~~ wherein the mask defines a block in the amorphous silicon film;

~~melting first portions of the block, wherein each first portion of the block corresponds to each slit of the mask;~~

~~crystallizing and wherein~~ the first portions ~~of the block are crystallized~~ by sequential lateral solidification that grows grains along a first direction from interfaces between solid phase amorphous silicon and liquid phase silicon;

stepping the mask in the first direction by several micrometers ~~to a set position within the block~~ using the mask stage after completing the crystallization for the first portions;

irradiating the laser beam to next portions of the block of the amorphous silicon film through the plurality of slits of the mask stepped, wherein repeatedly melting and crystallizing the next portions of the block are adjacent to the first portions within the block whenever the mask steps in the first direction by the mask stage, and wherein the stepping of the mask in the first direction by the mask stage and the irradiation of the laser beam thereafter are repeated until a lateral grain growth stops in the block by a collision of laterally grown grains, thereby completing the crystallization within the block in the amorphous silicon film;

stepping the X-Y stage block by block in the first direction to crystallize another block of the amorphous silicon film after completing the crystallization in the previous block; and

repeatedly melting and crystallizing another block of the amorphous silicon film whenever the X-Y stage steps.

6. (Previously Presented) The method according to claim 5, wherein the laser beam irradiates the amorphous silicon film whenever the mask steps by the mask stage.

7. (Previously Presented) The method according to claim 5, wherein the mask stage steps the mask in a direction of lateral grain growth by a distance which is equal to or less than the length of the lateral grain growth.

8. (Previously Presented) The method according to claim 5, wherein the sequential lateral solidification apparatus includes a condenser lens between the mask and the laser generator.

9. (Original) The method according to claim 8, wherein the condenser lens condenses the laser beam.

10. (Previously Presented) The method according to claim 5, wherein a distance over which the X-Y stage steps is greater than a distance over which the mask controlled by the mask stage steps.

11. (Currently Amended) A method of crystallizing an amorphous silicon film using a sequential lateral solidification apparatus, comprising:

providing a substrate having an amorphous silicon film thereon on an X-Y stage;

[[applying]] irradiating a laser beam to the amorphous silicon film through a mask having plurality of slits so that first portions of the amorphous silicon film ~~corresponding to each slit of the mask~~ are melted and crystallized, wherein the mask defines a block in the amorphous silicon film;

crystallizing and wherein the first portions of ~~the amorphous silicon film~~ are crystallized by [[the]] sequential lateral solidification that grows grains along a first direction from interfaces between solid phase amorphous silicon and liquid phase silicon;

stepping the mask in the first direction by several micrometers ~~to a set position within the block after completing the crystallization for the first portions so that the plurality of slits correspond to next portions of the block that have not been crystallized;~~

irradiating the laser beam to next portions of the block of the amorphous silicon film through the plurality of slits of the mask stepped, wherein repeatedly melting and crystallizing the next portions of the amorphous silicon film within the block are adjacent to the first portions, and wherein stepping the mask in the first direction and irradiating the laser beam thereafter are repeated until a lateral grain growth stops in the block by a collision of laterally grown grains, thereby completing the crystallization within the block in the amorphous silicon film;

stepping the substrate block by block in the first direction to correspond to a next block of the amorphous silicon film after completing the crystallization in the previous block, the next block having a portion with uncrystallized silicon film; and

repeatedly melting and crystallizing portions of the next block of the amorphous silicon film by stepping the mask until a lateral grain growth in the next block stops by a collision of laterally grown grains.

12. (Previously Presented) The method according to claim 11, wherein the laser beam is applied to the amorphous silicon film after each time the mask is stepped.

13. (Previously Presented) The method according to claim 11, wherein the mask is stepped in a direction of lateral grain growth by a distance which is equal to or less than the length of the lateral growth.

14. (Previously Presented) The method according to claim 11, wherein a distance by which the substrate is stepped is greater than a distance by which the mask is stepped.